Herbicidal 4-ureido-thiophene-3 carboxylic acid ester(s) - prepd. e.g. by reaction of 4-amino-thiophene-3- carboxylic acid ester(s) with isocyanate(s)

Patent Assignee: BASF AG (BADI )
Inventor: ACKER R D; ROSSY P A; WUERZER B

Abstract (Basic): DE 3305866 A

Cpds. of formula (I) are new. In (I) R1=H, 1-10C alkyl, 2-10C alkenyl, 2-10C alkynyl, 1-10C haloalkyl, 2-10C alkoxyalkyl, 2-10C alkylthioalkyl, 3-7C cycloalkyl, phenyl(opt. substd) by or benzyl (opt. substd.); R2=1-10C alkyl, 2-10C alkenyl, 2-10C alkylnyl, 8-10C phenylalkyl, 1-10C haloalkyl, 2-10C alkoxyalkyl, 2-10C alkylthioalkyl, 3-7C cycloalkyl, phenyl (opt. substd.) or benzyl (opt. substd.).

USE - As selective herbicides in a wide range of crop plants. Application may be pre- or post-emergence and is generally at a rate of 0.1-5 kg/ha or more, pref. 0.5-3 kg/ha.

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Plant growth regulating compsns. - contg. 2-amino-furan or 2-amino-thiophene derivs.

Patent Assignee: BAYER AG (FARB )
Inventor: DICKORE K; LUERSSEN K

Abstract (Basic): EP 4931 A

Compsn. contains a heterocyclic cpd. of formula (I): where R' is alkyl or opt. substd. aryl; R2 is R1 or H; R3 is H or -C(Y)R5; X and Y are O or S; R5 is (halo or alkoxy) alkyl, opt. ring-substd. aryloxyalkyl, alkoxy, opt. substd. aryl(oxy), (di)alkylamino, (di)alkenylamino, opt. substd. arylamino, 5-7 membered N-bonded heterocyclyl or -NHNR6R7; R6 and R7 are H or alkyl, or NR6R7 is 5-7 membered heterocyclyl; R4 is CN or -COR8; and R8 is alkoxy or amino.

(I) influence plant metabolism and hence regulate growth. Applications include inhibiting vegetative growth (e.g. to avoid trimming of lawns, prevent lodging and strengthen stems in cereals, allow denser planting in cultures and allow greater flow of nutrients to fruit and flowers); promotion of vegetative growth; increasing the amt. of sugar in beets, cane, pineapples and citrus fruits, or proteins in soybeans and cereals; causing parthenocarpic fruiting and influencing the sex of blossoms; stimulating latex prodn. in rubber trees; breaking apical dominance (e.g. to prevent suckering in tobacco plants); promoting defoliation (e.g. of vines and cotton), fruit drop, ripening or colouring; influencing seed or bud dormancy; controlling the endogenous annual growth cycle so that plants germinate, grow or bloom at unusual times of year; delaying budding or germination to prevent frost damage; including halophilia so that plants grow on salty soils; and inducing resistance to frost and drought.

Application rate is 0.01-50